

THE FIRST
MUNICIPAL ELECTRIC STREETLIGHTING
IN
AUSTRALIA
COMMENCED AT
TAMWORTH NSW
9TH NOVEMBER 1888





The Inauguration of Municipal Electric Streetlighting

*Be sure to remember the ninth of November,
For everyone well might say
T'would not be right to stay away.
Come and see the Electric Light
A sight so bright
On this particular night
So come from far and come from near
Bring your friends, be sure you're here
To give the Electric Light a cheer!*

**at the
Tamworth Powerstation Museum
216 PEEL STREET, TAMWORTH**



"Tamworth Post Office
at night 1888"

The Beginning



The place where explorer John Oxley crossed the Peel River was named Tamworth in 1835 and it first appeared on a map in 1837. By 1841 East Tamworth had two slab huts and on 1st January 1850 it was proclaimed a Borough, with a population of 250.

Tamworth was connected by telegraph on 9th November 1861, less than four years after its introduction to New South Wales. The first Borough Council was elected in May 1876 and the population had grown to 3,000 people.

The first street light, an oil lamp, was erected outside the post office in 1876. In the following year two oil lamps were erected on the Peel River Bridge.

The railway was extended from Newcastle and the first train arrived on 14th October 1878.

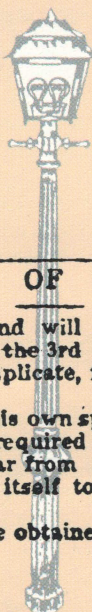
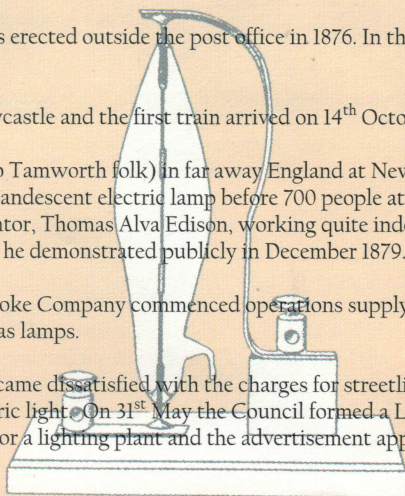
On 3rd February 1879 (unbeknown to Tamworth folk) in far away England at Newcastle Upon Tyne, Joseph Wilson Swan demonstrated the first successful incandescent electric lamp before 700 people at the Literary and Philosophical Society. On 21st October 1879 the American inventor, Thomas Alva Edison, working quite independently, also succeeded in developing an incandescent electric lamp which he demonstrated publicly in December 1879.

In June 1882 the Tamworth Gas & Coke Company commenced operations supplying 25 streetlights. By 1888 eleven kilometres of streets were lit by 52 gas lamps.

During 1887 the Borough Council became dissatisfied with the charges for streetlights by the Gas Company and they resolved to investigate the new electric light. On 31st May the Council formed a Lighting Committee. On 23rd August 1887 the Council resolved to call tenders for a lighting plant and the advertisement appeared in the Sydney Morning Herald on Tuesday, 5th September 1887.

On 18th January 1888, The Council signed a contract accepting the tender of George Harrison and Alfred Whiffen, electrical engineers of Sydney, representing Crompton & Company of Chelmsford, England.

The plant to consist of two 18 Kilowatt steam driven generating sets, three 3,000 candlepower arc lamps and a further 52 former gas light posts to be fitted with groups of two or three 20 candlepower incandescent lamps. The contract price was £2,875 to be paid after 12 months operation together with interest at 6% per annum and working expenses of £642.10.00 to be paid to the contractors during the 12 months. The work was to be completed in 10 months.



BOROUGH OF TAMWORTH.

TENDERS are invited, and will be received at the Council Chambers up to MONDAY, the 3rd October, for the Supply and Erection of a PLANT, in duplicate, for LIGHTING the Borough with ELECTRICITY.

Each tenderer to submit his own specification.

The contractor will be required to maintain and work the plant for a period of one year from the completion of the work.

The Council does not bind itself to accept the lowest or any tender.

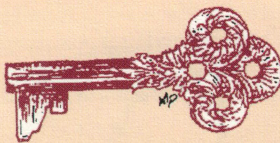
Further particulars may be obtained from the undersigned,

D. F. W. VENESS,
Council Clerk.

**Council Chambers,
Tamworth, September 2, 1887.**

The Inauguration

The installation was completed 10 days ahead of time and was officially switched on by the Mayoress, Mrs Elizabeth Piper, who unlocked the switch with a gold key presented by the contractors. It was 8 o'clock in the evening on Friday, 9th November 1888, and 21.5 kilometres of streets in Tamworth were lit by electricity; the first Municipal Electric Street Lighting in Australia.

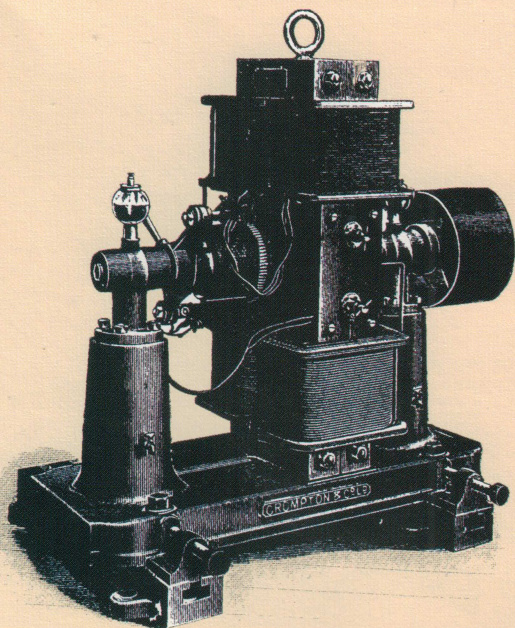


The contractors, at their own expense, also erected four 3,000 candlepower arc lights at The Oval, and following a day of sports and celebrations to mark the Inauguration of The Electric Light at The Oval, Tamworth, the final heats of the Second £100 Grand Sheffield Handicap of 130 yards were run off between 8.00 p.m. and 10.00 p.m. under the Electric Light.

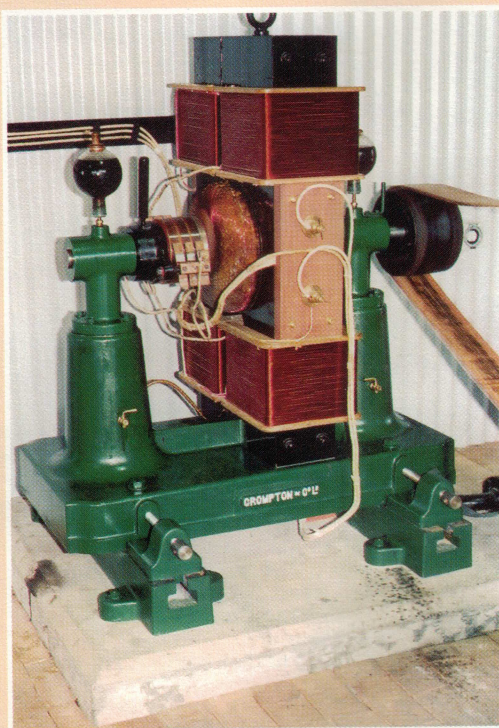
The plant consisted of two John Fowler double acting, cross compound, semi-portable undertype steam engines of 12 nominal horsepower developing 42 indicated horsepower at 150 rpm with steam at 140 psi, each driving by means of a flat leather belt, one of Crompton's Patent No 15 dynamo machines working at 740 rpm to generate 230 volts and capable of supplying 250 twenty candlepower Swan incandescent lamps.

From this humble beginning the Tamworth Municipal Council's undertaking grew until the Tamworth Powerstation supplied the whole of northwestern New South Wales from Murrurundi, Quirindi and Werris Creek, north to Manilla, Barraba, Armidale and Inverell, and northwest to Gunnedah, Boggabri, Narrabri, Bellata, Moree and to St. George in Queensland.

It was not until 1958 when a 330,000 volt transmission line operating at 132,000 volts was built from Muswellbrook to Tamworth by the Electricity Commission of New South Wales that northwestern New South Wales became connected to the State's interconnected generation and transmission system.



Crompton's 1888 Dynamo.



Replica built by Council.



The Obelisk.

During 1986/87 the Peel-Cunningham County Council at Tamworth, successors to the Tamworth Municipal Council's electricity undertaking, began making preparations for the Centenary of Electric Street Lighting in Australia. In November 1986, the Council completed refurbishing the illuminated Obelisk erected in 1938 to mark 50 years of Municipal Electricity. This stands outside the present Powerhouse Motel in Tamworth, previously the site of the later Tamworth Powerstation built in 1922 when the change to alternating current generation was made.

In late 1986, with the Centenary approaching, it was decided that Council should try to acquire the original 1888 powerstation site in Tamworth and rebuild the old powerstation just as it used to be, complete with the old gas lanterns fitted with carbon filament lamps, 3,000 candlepower arc lights and two steam driven 18 kilowatt Crompton dynamos.

It was thanks to David Phillips, Archivist, Institute of Agricultural History and Museum of English Rural Life, University of Reading, England, that we were able to identify the two John Fowler cross compound, semi-portable, undertype engines of 12 NHP, Serial Numbers 5718 and 5719 shipped ex Works, Leeds, 16th June 1888 to Australia.

This put the Council on the track in early 1987 as to what to look for. No clues could be found as to the fate of the original Fowler engines or the Crompton dynamos. Finding one in England proved to be hopeless.

The search around Australia's five eastern states remained unrewarding until late 1987 when almost simultaneously Council's Chief Engineer, Mr Ron Greer, located two John Fowler & Co. engines, Serial Number 7846 and Serial Number 7586. The first was found on a farm at Warnambool in South Western Victoria and the latter on a bank of the Murray River at Mannum in South Australia.

These engines were acquired, together with one operational boiler and one Fowler boiler found in a creek at Megan in Northern NSW. They were transported to Tamworth and restored to working order by the staff in the Council's workshops.

Meanwhile, with no hope of uncovering a Crompton dynamo, it was decided to construct two replicas. From a sketch of Crompton's "Trade" dynamo in a late 19th Century book on electricity, a design was prepared with dimensions and winding data to manufacture two machines which would produce 18 kilowatts at 230 volts when running at 740 rpm.

Council is grateful indeed to the Electricity Commission of NSW who made the wooden patterns for the castings to our requirements. From those patterns the moulds were made and the eight iron castings for each machine poured at the local G & C Foundry at Uralla, north of Tamworth. These were machined in Tamworth, together with the other necessary parts, and the armatures and field coils wound and assembled in the Council's workshops.

Preparing for the Centenary



Before Restoration.

Negotiations with the Tamworth City Council to acquire the original site at 216 Peel Street, which included the first Tamworth Municipal Electric Showroom building built in 1907, were finalised in May 1987. However, the Heritage Council's approval to subdivide was not received until 4th February 1988. It was June 1988 before the contract of sale could be executed.

The identification of the exact positions of the original steam engines was confirmed by a comprehensive survey of the site by Archaeologist, Sue Pearson, and the Council engaged local Heritage architect, John Carr to prepare plans and specifications to rebuild the 1888 engine house, restore the 1907 building to its original state and develop the site as the Tamworth Powerstation Museum.

The contractor, Dengate Constructions, commenced in mid-August 1988 and by the day of the Centenary, Wednesday, 9th November 1988, the Tamworth Powerstation Museum opened its doors at 216 Peel Street, displaying a unique collection of old electric lamps, switches, plugs, light fittings and electrical appliances of all kinds.

Much publicity surrounded the Centenary celebrations and the City was decorated with 200 banners fitted to the streetlighting standards. Designed by 12 year old Tamworth school student, Grant Hough, it gained immediate public acceptance and identifies Tamworth as the First City of Light. To commemorate this event and recognise the role played by Crompton & Co in 1888, Crompton Lighting especially manufactured 50,000 incandescent pearl lamps in 60 watt and 100 watt sizes, each acid etched with the Tamworth Centenary Logo and packed in a unique souvenir box.

During the official Centenary dinner at the Powerhouse Motel, the book "City Of Light" was launched. Written by Councillor Ian R. Lobsey, B.A., M.Litt., President of Nundle Shire and delegate to Peel-Cunningham County Council, it traces the history of lighting, the events leading to the first municipal electric streetlighting in Australia by the Tamworth Borough Council in 1888, and the development of the Tamworth electricity undertaking into the Peel-Cunningham County Council of 1988.

As a part of its programme of recognising those significant engineering contributions to the social development of Australia, the Institution of Engineers, Australia, dedicated its seventh Historic Engineering Marker plaque at the Tamworth Powerstation Museum on 13th November 1988. This is the first Historic Engineering Marker in Australia relating to Electrical Engineering.

In 1888, the electrical contractors to the Tamworth Borough Council, Messrs Harrison & Whiffen, at their own cost, erected four 3,000 candlepower Crompton carbon arc lights at The Oval to provide illumination for the sports. In 1988, the electrical contractors to the Tamworth City Council, the Peel-Cunningham County Council, erected four 3,000 candlepower replica Crompton arc lights in the new Bicentennial Gardens (formerly The Oval).

Centenary Re-Enactment



On 9th November 1988, Tamworth folk gathered outside the engine house in Peel Street at dusk just as they had on 9th November 1888. The Chairman, Ald Ray Walsh, M.B.E., invited old Tamworthian, Frank Brady, A.M., F.I.E. Aust., former Chairman and General Manager of the Electricity Commission of New South Wales, to officially open the Tamworth Powerstation Museum.

The gathering was reminded that while Alfred Whiffen had set the engines running, his partner, George Harrison, had presented Mayoress Elizabeth Piper with a diamond studded gold bracelet inscribed "Presented by Messrs Harrison & Whiffen to Mayoress Piper 9th November 1888 on Inauguration of Electric Light in Tamworth". He also presented her with a small gold key and invited her to unlock a switch and switch on the lights of Tamworth, which she did. When her daughter reached the age of 21 years, Elizabeth Piper handed the key down to her for safe-keeping. This key has been handed down through the daughters of the Piper Family in this way for century and is now in the possession of Denyse Reeve-Parker, the great, great, grand-daughter of Mayoress Eliabeth Piper. Denyse Reeve-Parker returned to Tamworth especially for the occasion and brought with her this special 100 year old gold key.

To the delight of the crowd, the Fowler steam engines were set running and the "Crompton" dynamos brought up to speed. As the dusk melted into the darkness of night Mrs Peggy Walsh used the historic gold key to again unlock a switch and switch on the street lights of Tamworth. The crowd gave three hearty cheers for the electric light (as was done 100 years ago) and the engine driver blew the steam whistle.

The first Municipality in Australia to introduce electric street lighting had marked up 100 years.



Tamworth Powerstation Museum, Australia's only All-Electric Museum.



The Tamworth Powerstation Museum is open Tuesdays to Fridays from 9.00 a.m. to 1.00 p.m. and on special occasions at weekends. The steam engines are fired up to drive the dynamos on special occasions. The Museum Curator and volunteers prepare items for display, arrange visits with schools, community groups, tour operators and tourists and explain to the visitors how electricity was first generated at the beginning of the electric light.

Tamworth Powerstation Museum

216 Peel Street (02) 6766 8324

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